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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,295	11/17/2000	Hideshi Sakurai	1086.1124/JDH	4922

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EXAMINER	
KHUONG, LEE T	

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/714,295	SAKURAI ET AL.	
	Examiner	Art Unit	
	Lee Khuong	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 10* is/are rejected.

7)☒ Claim(s) *2-9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. The following title is suggested: "The Method and Apparatus of relaying packets based on class of services".

3. The disclosure is objected to because of the following informalities:

The word "10--2" on page 12, line 3 should be replaced with "10-2".

The word "FIG. 2" on page 16, line 12 should be replaced with "FIG. 5".

The word "fist" on page 17, line 7 should be replaced with "first".

The word "10,1.2.2" on page 18, line 16 should be replaced with "10.1.2.2".

The word "FIG. 1" on page 19, line 11 should be replaced with "FIG. 5".

The word "14--1" on page 19, line 23 should be replaced with "14-1".

The word "PVI" on page 29, line 25 should be replaced with "VPI".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bal (6,457,061) et al, hereinafter referred as Bal, in view of Yu (6,625,150), hereinafter referred as Yu.

Regarding claims 1 and 10,

6. Bal teaches a packet relay apparatus and a method for relaying packets between a node and an IP network, said apparatus and method comprising: send packets to be relayed to said IP network (see figure 8, ***packets to be sent from LAN connection, inside network, through device 830, and relayed to the internet connection, outside network***), a send packet relay unit arranged to translate source addresses of said send packets to be relayed to said IP network into virtual IP addresses, said send packet relay unit establishing IP communication paths on a class by class basis in said IP network (see figure 1, col. 5, lines 10 – 15, col. 12, lines 66 – 67, col. 13, lines 1-8, ***NAT with purpose of monitoring internet usage of department groups***); a reply packet relay unit arranged to inversely translate destination addresses of reply packets from said IP network passing through said IP communication paths on a class by class basis into original addresses by reference to the results of address translation effected by said send packet relay unit (see figure 1, item 130, col. 4, lines 10-18, col. 5, lines 51-63, ***NAT reverse look-up table to locate the internal IP address***).

Bal fails to teach a class processing unit arranged to classify send packets to be relayed to said IP network depending on the types of applications. However, a class processing unit arranged to classify send packets depending on the types of applications is known in the art for providing performance and flexibility on policy-based network equipment.

Yu teaches a class processing unit to classify send packets depending on the types of applications (see figure 3, col. 3, lines 5-11, 17-21, col. 4, lines 64-67, col. 5, lines 1-5, ***classifying packet***) for the purpose of providing performance and flexibility on policy-based network equipment.

One skilled in the art would have recognized the advantage of using a class processing unit arranged to classify send packets as taught by Yu in the system of Bal for the purpose of achieving performance and flexibility on policy-based network equipment.

Thus, it would have been obvious to one skilled in the pertinent art at the time the invention was made to apply Yu's teaching of classifying send packets in Bal's system with the motivation of providing performance and flexibility on policy-based network equipment.

Allowable Subject Matter

7. Claims 2 – 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2-9 are allowable. The prior arts do not teach a class table having packet header information entered therein correspondingly to class names defining the types of said applications; an address translation rule table having virtual IP addresses and path information entered therein correspondingly to said classes; and an address translation table having therein entered the results of address translation from said packet source addresses to said virtual IP addresses; and wherein said send packet relay unit upon receipt of a send packet to said IP

network refers to said address translation table to retrieve a source virtual IP address, said send packet relay unit if there is no entry in said address translation table determining a class by reference to said class table and thereafter referring to said address translation rule table to retrieve a virtual IP address corresponding to said class, said send packet relay unit translating a send packet source address into said retrieved virtual IP address to enter the result of said address translation into said address translation table, and wherein said reply packet relay unit upon receipt of a reply packet from said IP network refers to said address translation table to retrieve a destination address corresponding to a destination virtual IP address, said reply packet relay unit inversely translating said destination virtual IP address of said packet into said retrieved destination address.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chiang (6,101,552) et al, discloses a method and system for a virtual IP gate, between a legitimate internet and a virtual internet.

Howes (6,366,558) et al, discloses a method and system for maintaining connection state between a connection manager and a failover device.

Borella (6,768,743) et al, discloses a method and system for address server redirection for multiple address networks.

Nagami (6,683,874) et al, discloses a router device and a label switched path control method using upstream initiated aggregation.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Khuong whose telephone number is 571-272-3157. The examiner can normally be reached on 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 703-305-4798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lee T. Khuong
Examiner
Art Unit 2665

RICKY NGO
PRIMARY EXAMINER